### § 29.815

to maintain the effectiveness of the exit.

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29–12, 41 FR 55472, Dec. 20, 1976]

#### § 29.815 Main aisle width.

The main passenger aisle width between seats must equal or exceed the values in the following table:

	Minimum main passenger aisle width	
Passenger seating capacity	Less than 25 inches from floor (inches)	25 Inches and more from floor (inches)
10 or less	12 12 15	15 20 20

<sup>&</sup>lt;sup>1</sup> A narrower width not less than 9 inches may be approved when substantiated by tests found necessary by the Administrator.

[Doc. No. 5084, 29 FR 16150, Dec. 3, 1964, as amended by Amdt. 29–12, 41 FR 55472, Dec. 20, 1976]

### § 29.831 Ventilation.

- (a) Each passenger and crew compartment must be ventilated, and each crew compartment must have enough fresh air (but not less than 10 cu. ft. per minute per crewmember) to let crewmembers perform their duties without undue discomfort or fatigue.
- (b) Crew and passenger compartment air must be free from harmful or hazardous concentrations of gases or vapors.
- (c) The concentration of carbon monoxide may not exceed one part in 20,000 parts of air during forward flight. If the concentration exceeds this value under other conditions, there must be suitable operating restrictions.
- (d) There must be means to ensure compliance with paragraphs (b) and (c) of this section under any reasonably probable failure of any ventilating, heating, or other system or equipment.

### § 29.833 Heaters.

Each combustion heater must be approved.

FIRE PROTECTION

# § 29.851 Fire extinguishers.

(a) Hand fire extinguishers. For hand fire extinguishers the following apply:

- (1) Each hand fire extinguisher must be approved.
- (2) The kinds and quantities of each extinguishing agent used must be appropriate to the kinds of fires likely to occur where that agent is used.
- (3) Each extinguisher for use in a personnel compartment must be designed to minimize the hazard of toxic gas concentrations.
- (b) Built-in fire extinguishers. If a built-in fire extinguishing system is required—
- (1) The capacity of each system, in relation to the volume of the compartment where used and the ventilation rate, must be adequate for any fire likely to occur in that compartment.
- (2) Each system must be installed so that—
- (i) No extinguishing agent likely to enter personnel compartments will be present in a quantity that is hazardous to the occupants; and
- (ii) No discharge of the extinguisher can cause structural damage.

## § 29.853 Compartment interiors.

For each compartment to be used by the crew or passengers—

- (a) The materials (including finishes or decorative surfaces applied to the materials) must meet the following test criteria as applicable:
- (1) Interior ceiling panels, interior wall panels, partitions, galley structure, large cabinet walls, structural flooring, and materials used in the construction of stowage compartments (other than underseat stowage compartments and compartments for stowing small items such as magazines and maps) must be self-extinguishing when tested vertically in accordance with the applicable portions of appendix F of Part 25 of this chapter, or other approved equivalent methods. The average burn length may not exceed 6 inches and the average flame time after removal of the flame source may not exceed 15 seconds. Drippings from the test specimen may not continue to flame for more than an average of 3 seconds after falling.
- (2) Floor covering, textiles (including draperies and upholstery), seat cushions, padding, decorative and non-decorative coated fabrics, leather, trays and galley furnishings, electrical